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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,791	07/21/2003	George Benedict	29653-701	9427
22470	7590	02/09/2005	EXAMINER	
HAYNES BEFFEL & WOLFELD LLP P O BOX 366 HALF MOON BAY, CA 94019			LEE, PATRICK J	
			ART UNIT	PAPER NUMBER
			2878	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No. 10/624,791	Applicant(s) BENEDICT, GEORGE	
	Examiner Patrick J. Lee	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0904</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on 1/3/2005. These drawings are acceptable.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 & 3 are rejected under 35 U.S.C. 102(b) as being anticipated by US 2002/0064341 A1 to Fauver et al.

Fauver et al disclose an optical beam scanner comprising optical fiber (20, 220, 258, 302), sensors (30), actuators (28), control unit (40), and light sources (194, 222, 224, 254, 302).

With respect to claim 1, Fauver et al disclose light sources to provide a first beam for scanning and a second beam not used for scanning (see page 7, paragraph [0072]). The second beam is received by sensor (30) with information about the "direction of the scanning waveguide". The sensor (30) then sends a signal to control unit (40), which uses the information to control the bending of fiber (20) as an optical conduit in to positions (24 and 24') accordingly through the use of actuator (28) located to the side of

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optical conduit (20). Fauver et al also discloses the use of a microlens at the end of the waveguide scanner for specific optical scanning applications (see page 4, paragraph [0047]).

With respect to claim 3, Fauver et al disclose the use of piezoelectric actuator (28) (see page 7, paragraph [0072]).

4. Claims 4, 17, 24-26, 28, & 35-37 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,845,190 B1 to Smithwick et al.

With respect to claims 4, 17, & 28, as common assignees of Fauver et al, Smithwick et al disclose similar features as US 2002/0064341 A1 to Fauver et al in figures 16A & 16B. But Smithwick discloses the use of laser diode (250) to provide a second beam; scanning fiber (256) as an optical conduit conveying a first beam produced by laser (258); tube actuator (30) as an actuator connected to the optical conduit; PLL (92), VCO (110) and multiplier (111) as a motivator and servo system to drive the fiber (256) (see column 12, lines 23-25); and polarization filter (262), polarization beamsplitter (252), and stop filter (262) to serve as a patterned optical element encoding positions of the optical conduit based in the polarization of the beam produced by laser diode (250) (see column 18, lines 13-37).

With respect to claims 24-26, Smithwick et al disclose light sources (258, 250) to be optically coupled to probe (256). Detector (266) is coupled to probe (256). Smithwick also discloses the microlens to be formed on a fiber (see column 19, lines 25-31) to generate focused scanning patterns.

With respect to claims 35-37, Smithwick et al disclose the pattern of scanning (see column 2, lines 31-35).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 2002/0064341 A1 to Fauver et al.

With respect to claim 2, Fauver et al do not explicitly disclose the control of magnetic or electric fields, but such modifications would have been obvious because this would allow for accurate movement of the fiber (20) for scanning purposes.

7. Claims 5-16, 18-23, 27, & 29-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,845,190 B1 to Smithwick et al.

With respect to claims 5-7 & 29-32, Smithwick et al disclose the system as described in the discussion of claim 4. However, Smithwick et al do not explicitly specify the type of patterned optical element. To modify the teachings of Smithwick et al accordingly would have been obvious to one of ordinary skill in the art as the patterned optical element would enhance the device's ability to accurately distinguish position of the conduit.

With respect to claims 8-14, 22-23 & 33, the modified Smithwick et al do not explicitly disclose specifics of the optical probe (256); however, to modify the teachings

of Smithwick et al accordingly would have been obvious as a functional equivalent as optical probe (256) is used to deliver light from source (258).

With respect to claim 15, the modified Smithwick et al does not explicitly disclose the use of a capacitor plate, but such would have been a functional equivalent of detector (266) as both are used to detect the second beam that encodes position of probe (256)

With respect to claims 16, 18-21, & 34, such modifications would have been obvious to one of ordinary skill in the art, as they would have constituted a functional equivalent to piezoelectric driver (30).

With respect to claim 27, Smithwick et al do not disclose the use of a chamber, but such would have been obvious to one of ordinary skill in the art as a mere matter of intended use in order to scan an object in high pressure or high temperature situations.

Response to Arguments

8. Applicant's arguments with respect to claims 1-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

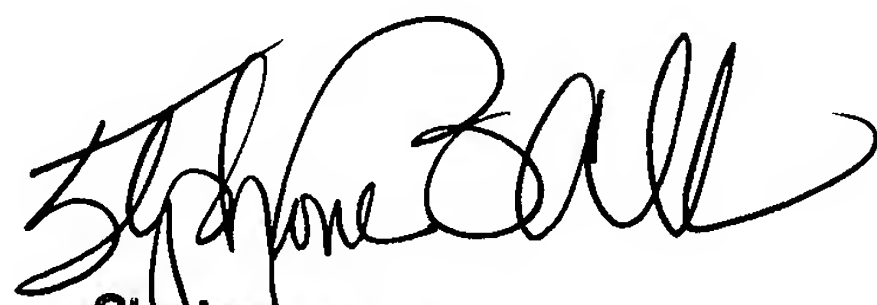
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Lee whose telephone number is (571) 272-2440. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J. Lee
Examiner
Art Unit 2878

PJL
February 4th, 2005


Stephone B. Allen
Primary Examiner